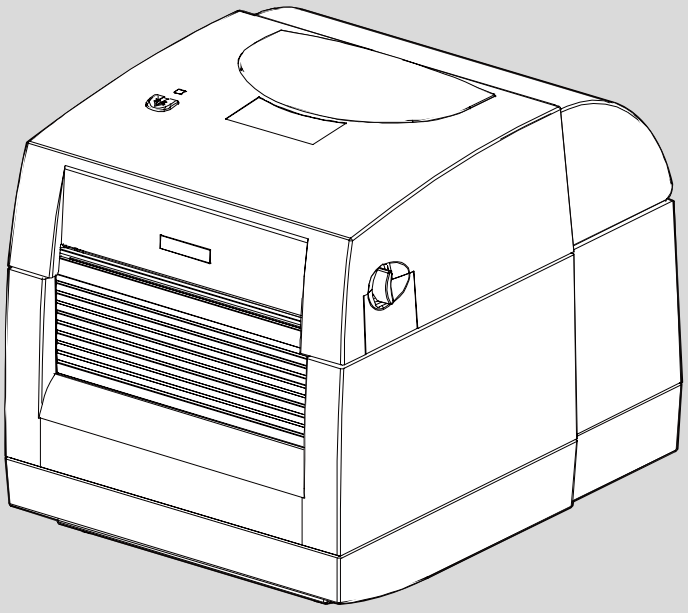
CITIZEN
Micro HumanTech

Thermal Label & Barcode Printer

CL-S300

USER'S MANUAL



FCC COMPLIANCE STATEMENT
FOR AMERICAN USERS

This equipment has been tested and found to comply with the limits for a CLASS A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at own expense.

EMS AND EMI COMPLIANCE STATEMENT
FOR EUROPEAN USERS

This equipment has been tested and passed with the requirements relating to electromagnetic compatibility based on the standards EN 55022: 2010, CISPR 22, Class A
EN 55024: 2010, IEC 61000- 4 Series EN 61000-3-2 / 2006+A1:2009+A2:2009 & EN 61000-3-3:2008. The equipment also tested and passed in accordance with the European Standard EN55022 for the both Radiated and Conducted emissions limits.

CL-S300
TO WHICH THIS DECLARATION RELATES
IS IN CONFORMITY WITH THE FOLLOWING STANDARDS

EN55022 : 2010, Class A / EN55024 : 2010 / IEC 61000-4 Series / EN61000-3-2 : 2006+A1:2009+A2:2009 / EN 6100-3-3 : 2008 / CFR 47, Part 15/CISPR 22, Class A / ANSI C63.4 : 2009 / IEC60950-1 : 2005 (EN 60950-1 : 2006+A11 : 2009+A1:2010+A12:2011) / GB4943.1 : 2011 / GB9254 : 2008 / GB17625.1 : 2003

CAUTION

- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Safety instructions

Please read the following instructions carefully.

1. Keep the equipment away from humidity.

2. Before you connect the equipment to the power outlet, please check the voltage of the power source.

3. Make sure the printer is off before plugging the power connector into the power jack.

4. It is recommended that you connect the printer to a surge protector to prevent possible transient overvoltage damage.

5. Be careful not to get liquid on the equipment to avoid electrical shock.

6. For safety and warranty reasons, ONLY qualified service personnel should open the equipment.

7. Do not repair or adjust energized equipment under any circumstances.

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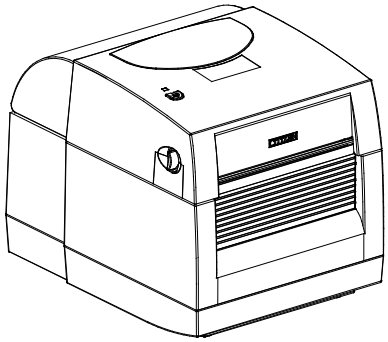
1. Barcode printer

1-1. Box content

Please check that all of the following items are included with your printer:

- Barcode printer
- Power cord
- Quick Start guide
- CD (with BarTender label software / User's manual)



CL-S300

1-2. Specifications

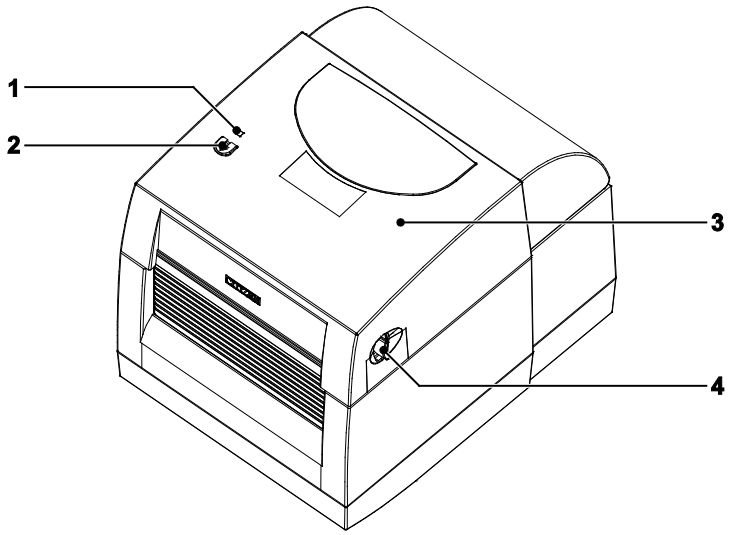
Model	CL-S300
Print Method	Direct Thermal
Resolution	203 dpi (8 dot/mm)
Print Speed	4 IPS (102 mm/s)
Print Width	4.25" (108 mm)
Print Length	Min. 1.5" (38.1 mm)**
Memory	64KB Flash (4MB for user storage) ; 16KB SDRAM (No user storage)
Sensor Type	Adjustable reflective sensor. Fixed transmissive sensor, central aligned
Media	Types: Continuous form, gap labels, black mark sensing, and punched hole; label length set by auto sensing or programming
	Width: 1" (25.4 mm) Min. - 4.64" (118 mm) Max. Thickness: 0.003" (0.06 mm) Min. - 0.008" (0.20 mm) Max. Label roll diameter: Max. 5" (127 mm) Core diameter: 1", 1.5" (25.4 mm, 38.1 mm)

Software	Label design software: BarTender Driver: Windows 2000, XP, Vista, 7, 8, Windows Server 2003, 2008 & 2012
Interfaces	USB Device
Control Panel	One Tri-color LED: Power (Green, Orange and Red) Control key: FEED
Power	AC100-240V 1.6A (Max) 50/60Hz
Environment	Operation temperature: 41°F to 104°F (5°C to 40°C) Storage temperature: -4°F to 122°F (-20°C to 50°C)
Humidity	Operation: 30-85%, non-condensing. Storage: 10-90%, non-condensing.
Agency Approvals	CE(EMC), FCC Class A, CB, UL, c-UL, CCC
Dimension	Length: 222 mm Height: 178 mm Width: 168 mm
Weight	2.0Kg ,excluding consumables
Options	Label Dispenser

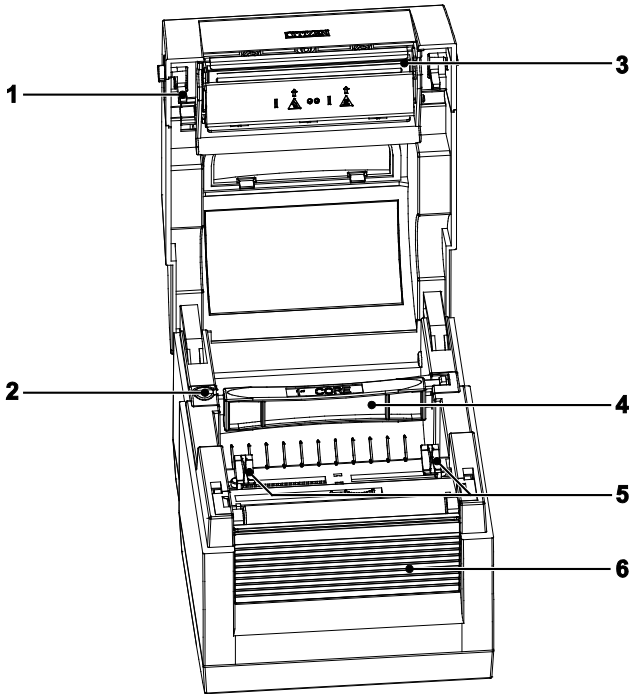
**Specifications are subject to change without notice. All company and/or product names are trademarks and/or registered trademarks of their respective owners.*

*** Minimum print height specification compliance can be dependent on non-standard material variables such as label type, thickness, spacing, liner construction, etc. Citizen is pleased to test* non-standard materials for minimum height printing capability.

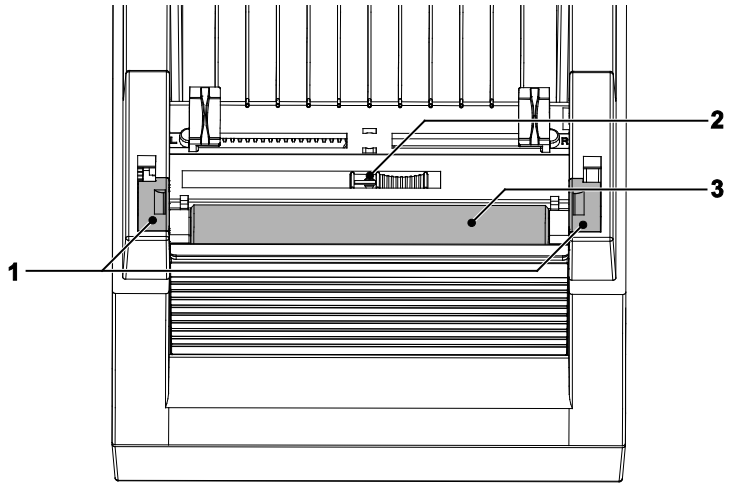
1-3. Getting to know your printer



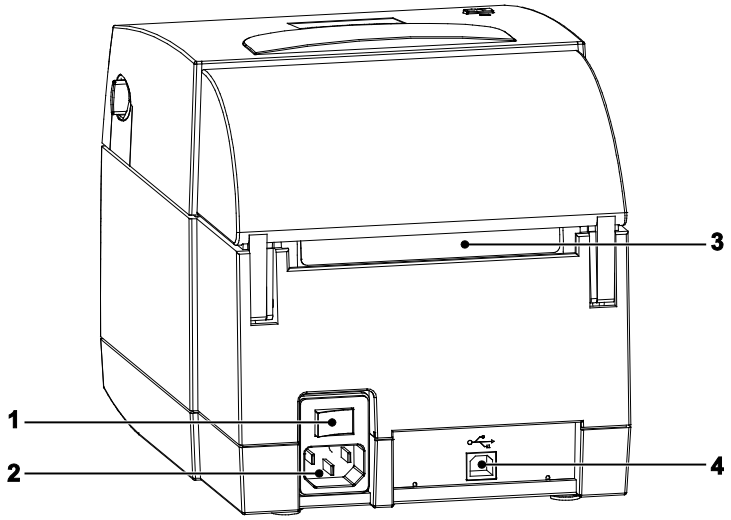
1.	LED indicator
2.	FEED function button
3.	Printer cover
4.	Release buttons



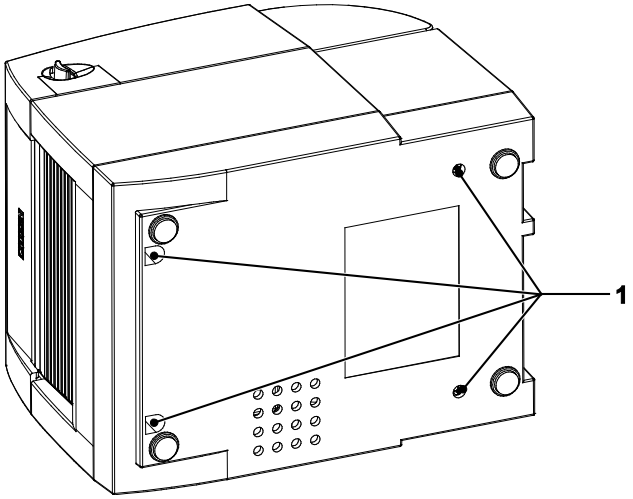
1.	Print head release lever
2.	Label roll holder
3.	Print mechanism
4.	Label supply hub
5.	Label guides
6.	Front cover



1.	Platen cover
2.	Label sensor
3.	Platen roller



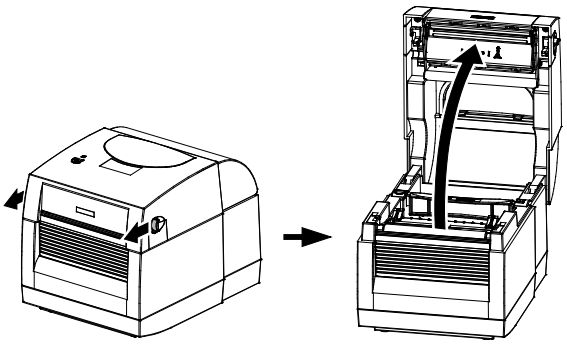
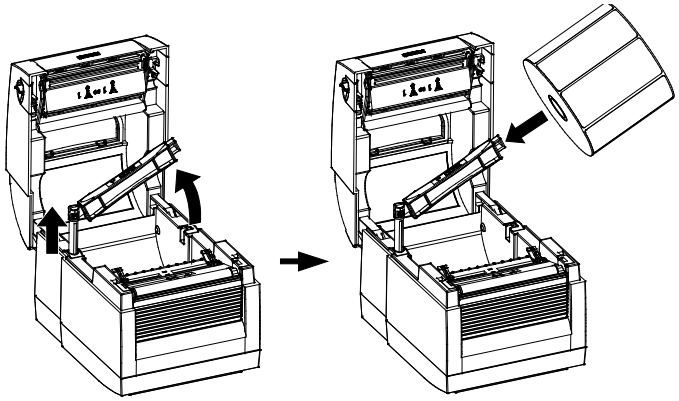
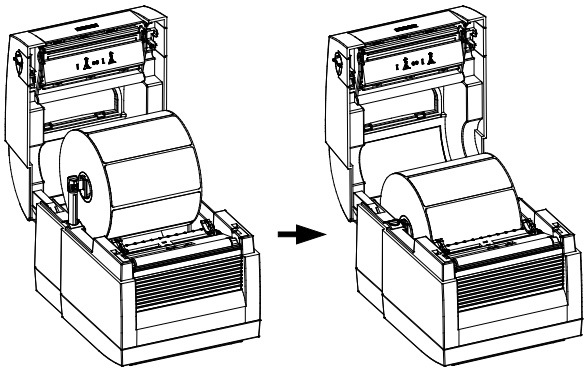
1.	ON/OFF switch
2.	Power socket
3.	Feed slot for continuous labels
4.	USB port

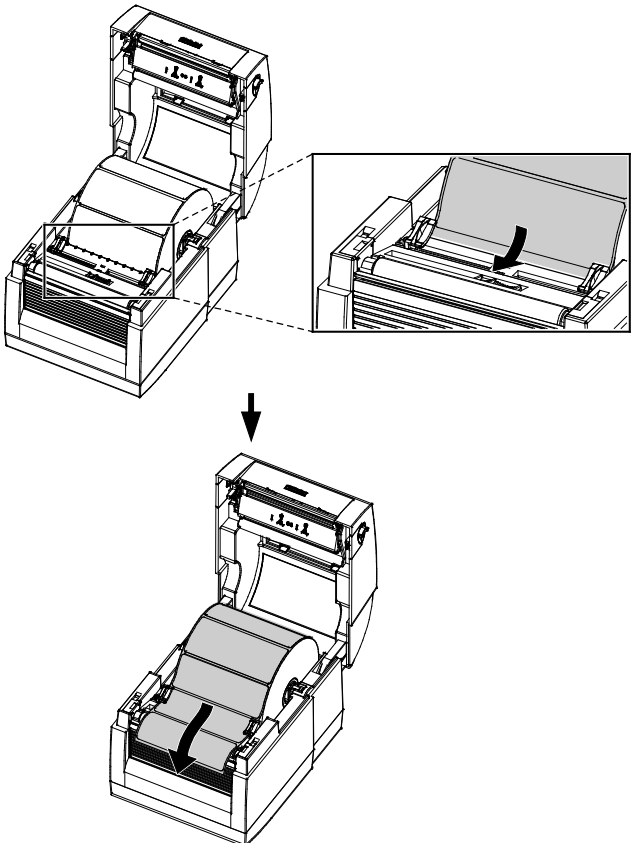
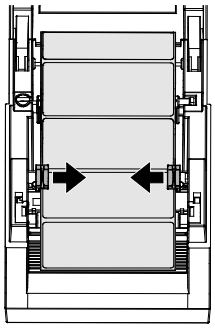
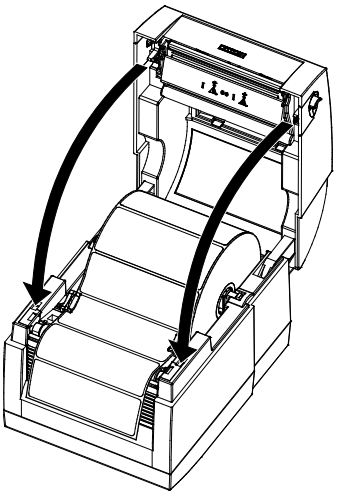


1.	Mounting points

2. Printer setup

2-1. Loading the label roll

1. Place the printer on a flat surface and open the printer cover.	
2. Lift the label roll holder and pull it out as far as possible. 3. Install the label roll on the label supply hub.	
4. Now press the label roll holder down until it clicks into place. 5. Return the label roll holder to its original position.	

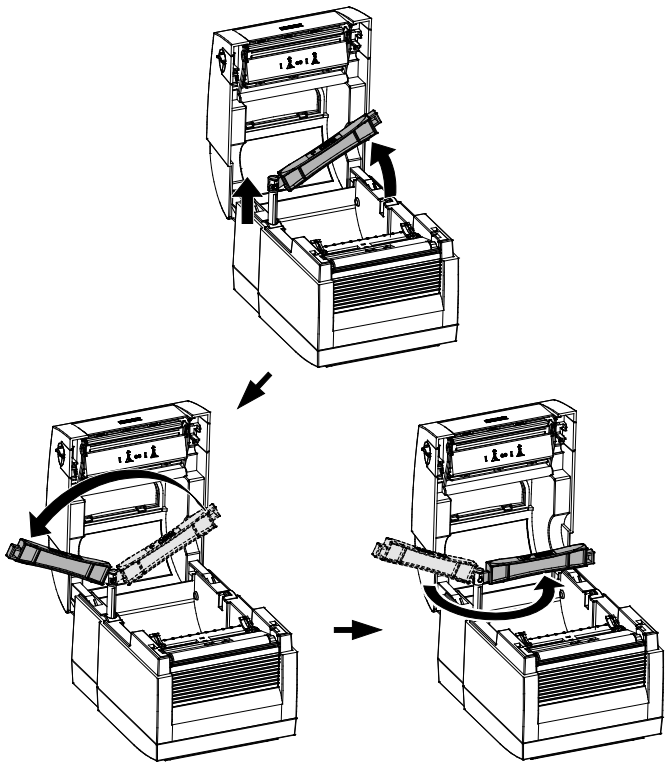
6. Pass the label under the paper guides and pull it forward.	
7. Adjust the paper guides to the width of the label liner.	
8. Close the printer cover to finish loading the labels.	

2-2. Installing the label roll holder

1. Pull the label roll holder out as far as it will go.

2. Fold out the label supply hub as shown in the illustration.

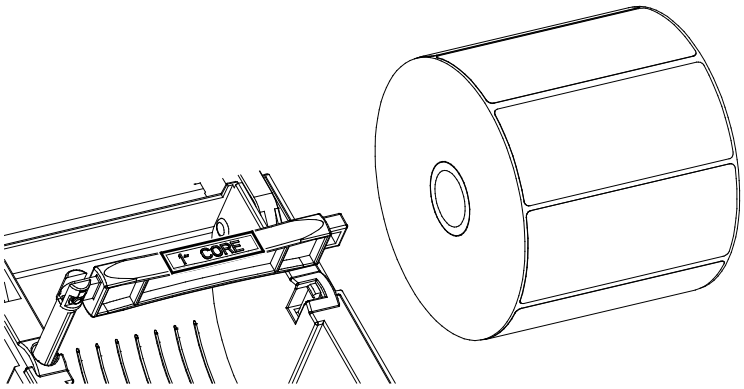
3. Now rotate the label roll holder to return the label supply hub to its original position. Press down the label supply hub until it clicks into place.



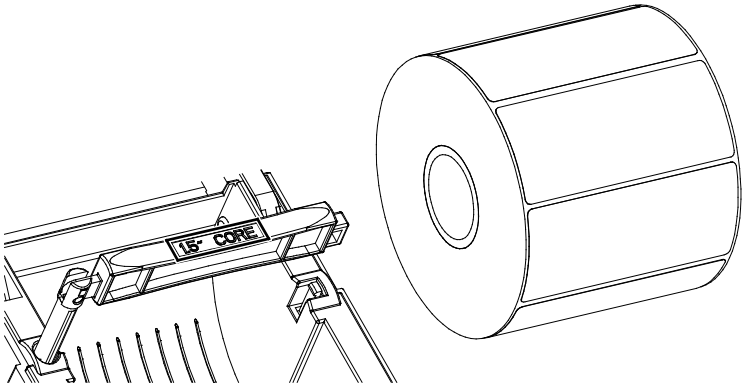
A. To load label stock with a 1" core, the locking notch must be at the top of the label supply hub.

B. To load label stock with a 1.5" core, the locking notch must be at the bottom of the label supply hub.

1" core



1.5" core

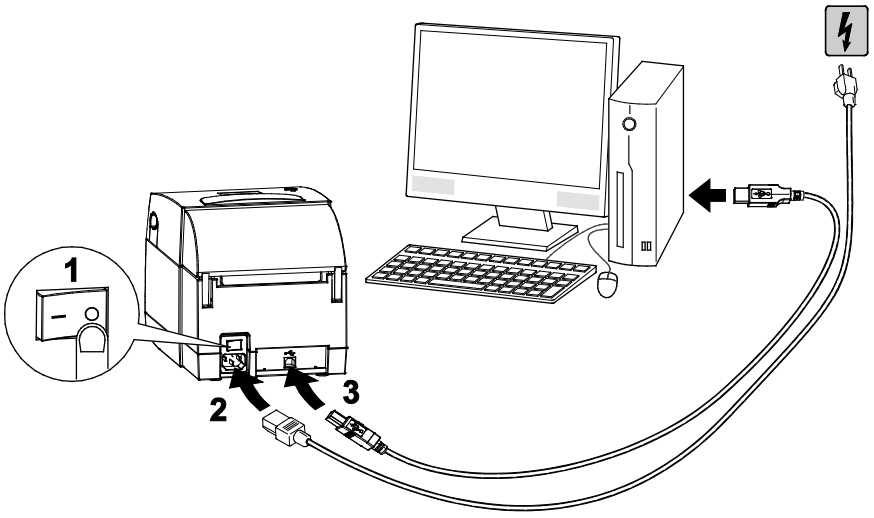


【Note】

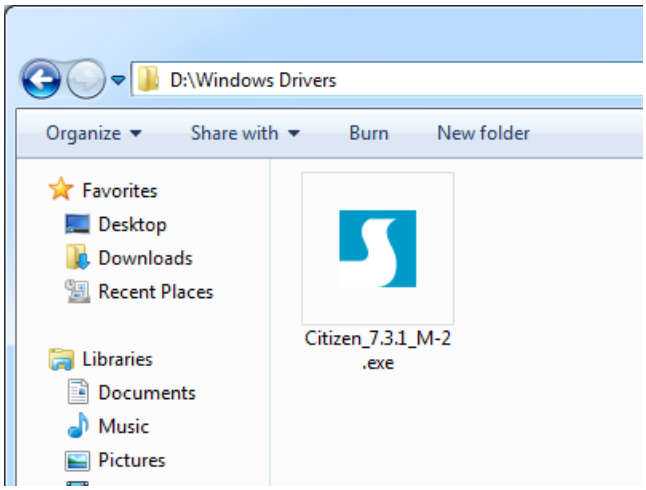
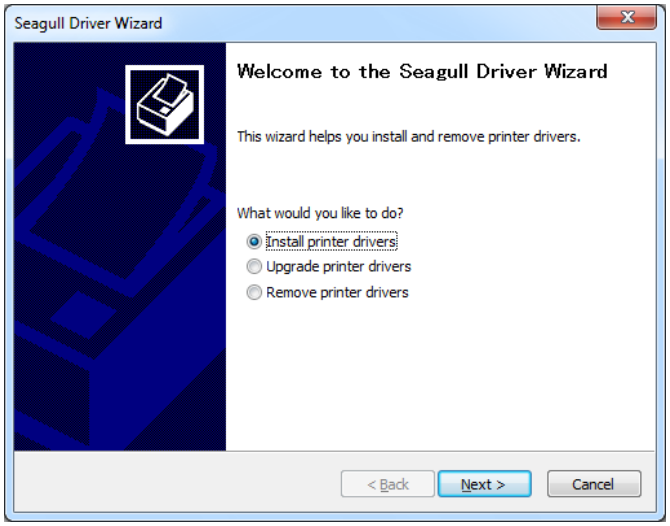
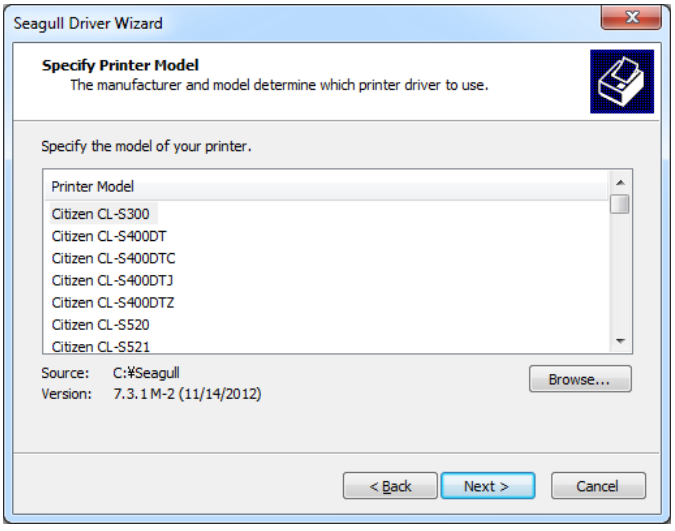
The hub is also marked on both sides to indicate the core size, as shown in the illustration.

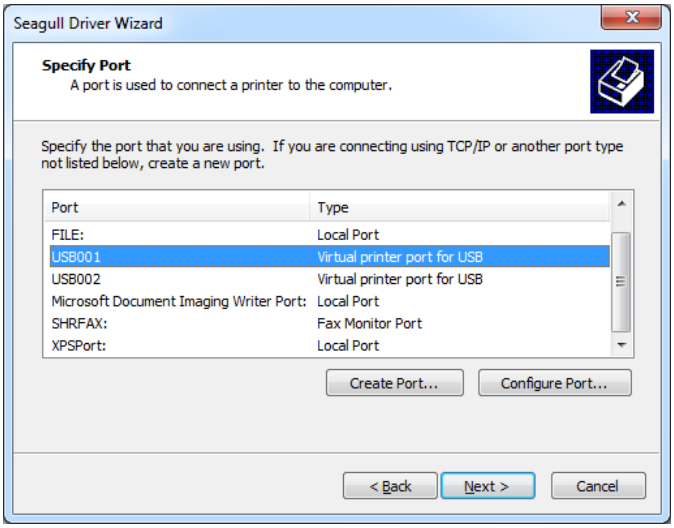
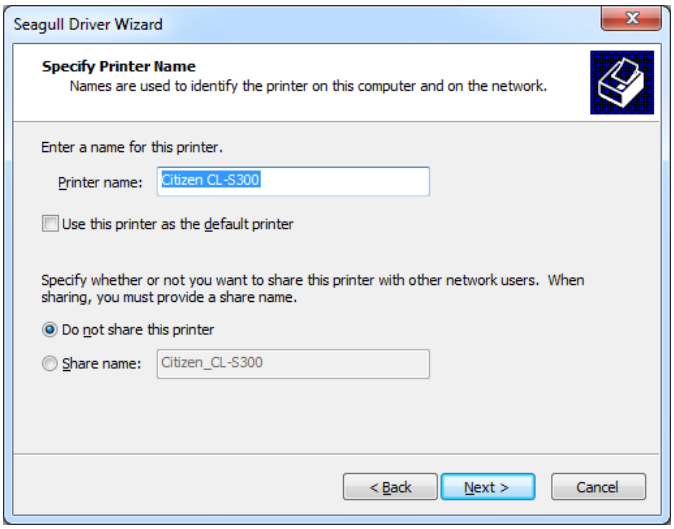
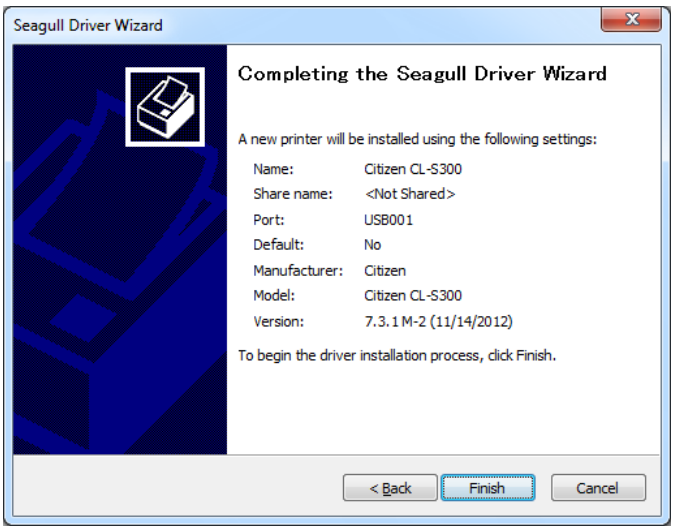
2-3. Connecting the printer to the host computer

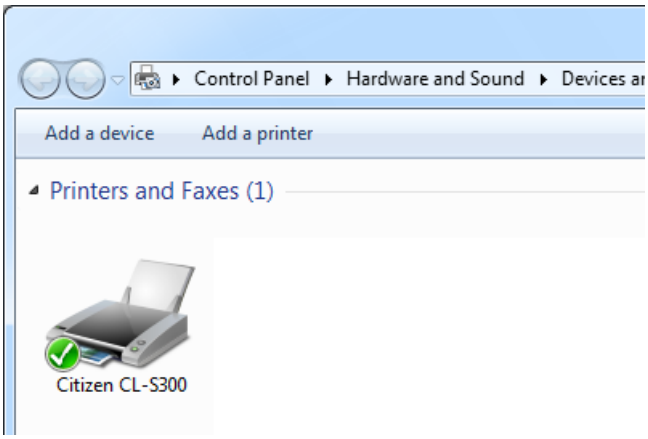
1. Please make sure that the printer is switched off.
2. Connect the power code to the printer, then connect to the electrical outlet.
3. Connect the printer with the host computer via the USB port.
4. Switch on the printer. The LED indicator should light up.



2-4. Installing the driver

1. Insert the product CD in the CD/DVD drive of the host computer and open the "Windows Drivers" folder on the CD. 2. Execute the file with the same icon as the file selected in the illustration on the right.	
3. Follow the instructions in the installation wizard. 4. Select "Install printer drivers" to start with the driver installation.	
5. Specify your printer model and continue with the installation.	

6. Specify the port used to connect the printer to the host computer.	
7. Enter a printer name. The printer will be listed under this name in the "Printers and Faxes" folder. 8. Specify whether or not you want to share the printer with other network users and assign the printer a share name.	
9. When you have configured all the settings, a summary of the printer settings is displayed, which you should check. 10. If all settings are correct, click Finish to start copying the driver files.	

11. Once copying is complete, the new printer should be visible in the "Printers and Faxes" folder.	

3. Operator panel

3-1. FEED button

When you press the FEED button, the printer moves the label to the defined stop position. If you are using continuous media, pressing the FEED button will move label stock until you release the button again. If you are using individual labels, pressing the FEED button will move only one label.

3-2. LED status

	LED indicator	**Status**	**Description**
	Green	**Standby mode**	The printer is ready for operation.
	Orange (flashing)	**Error mode**	The printer has detected an error. (see Section **3-4. Error alerts**)

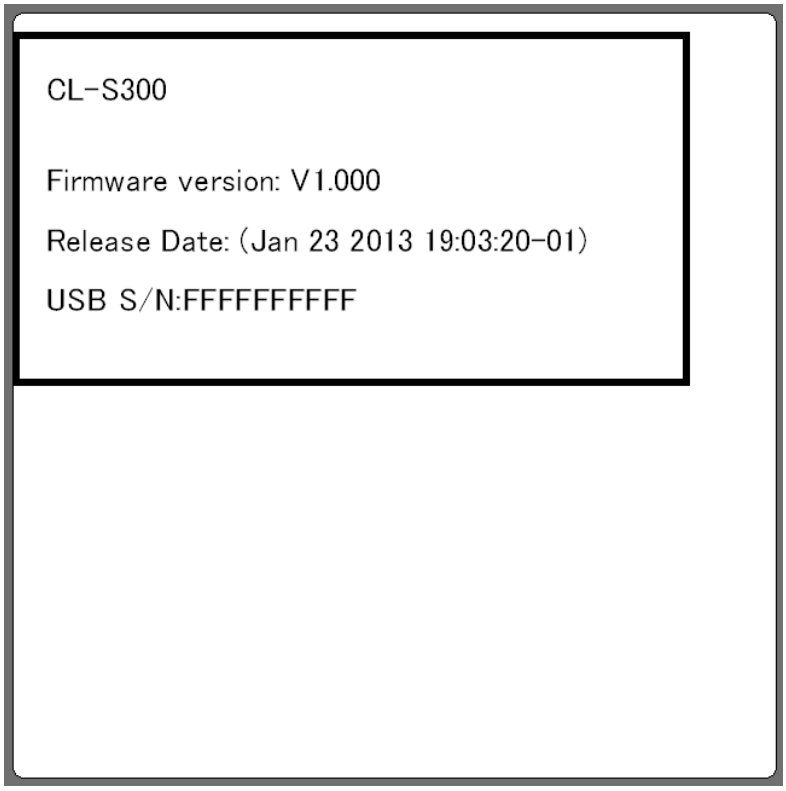
3-3. Self test

The self-test function helps you find out whether the printer is functioning normally.

To generate the self-test, install media in the printer as described elsewhere.

Then switch on the printer holding down the FEED key. The printer will beep ONCE and the LED will light orange. After three seconds, the printer will beep THREE times and the self-test will be produced.

The printer prints the following test page:

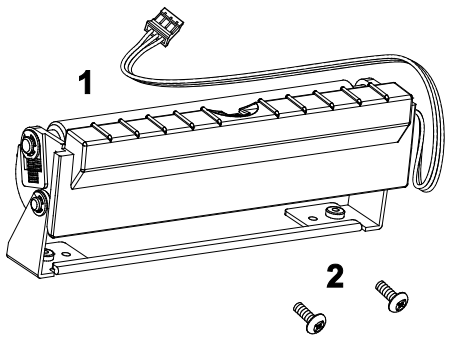
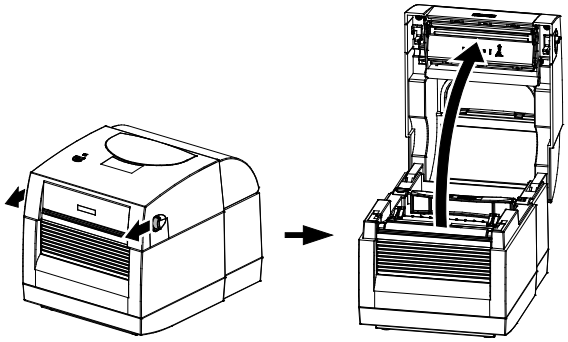
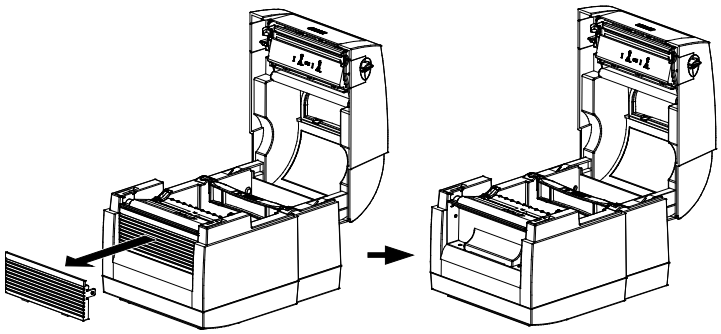


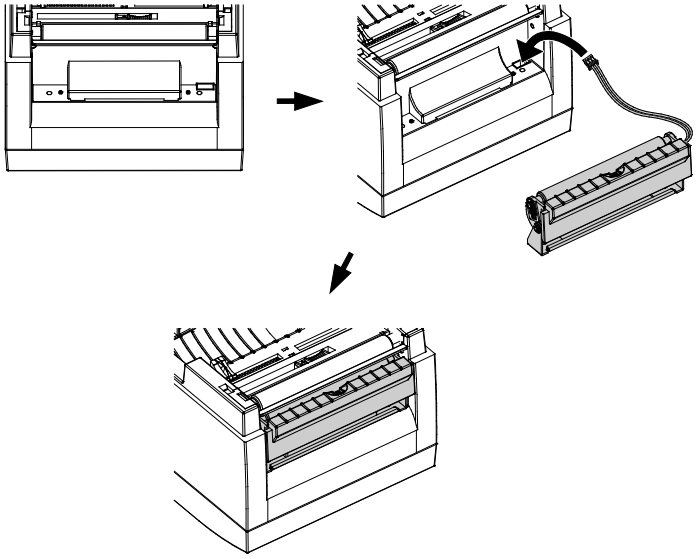
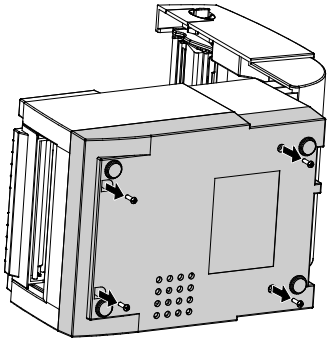
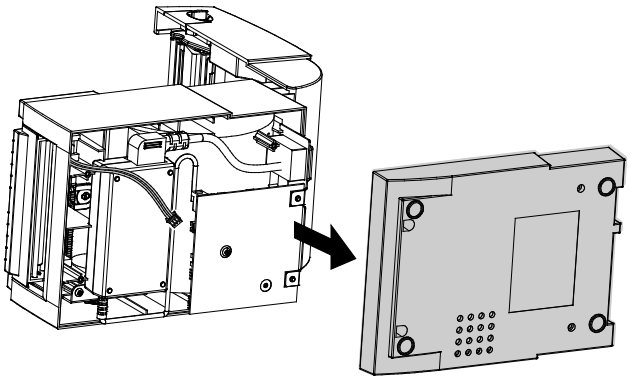
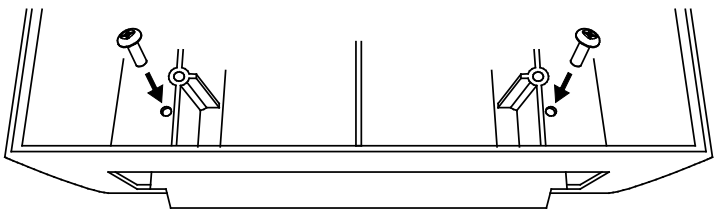
3-4. Error alerts

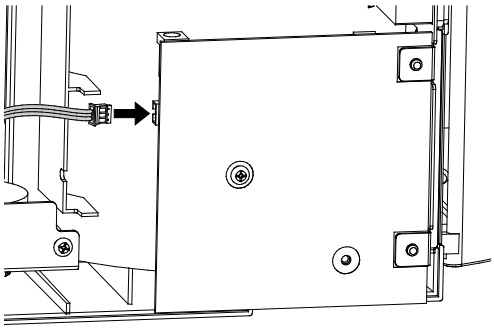
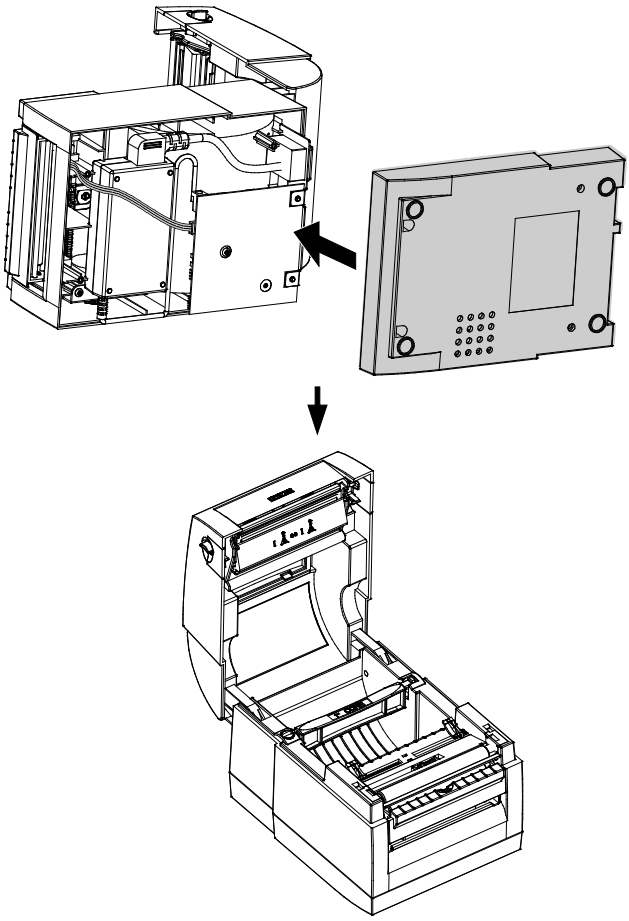
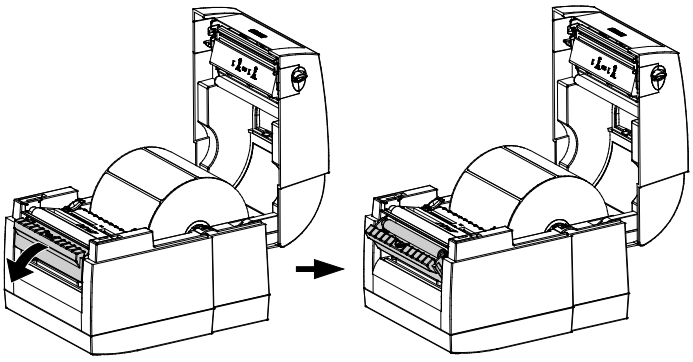
LED indicator	Beeps	Description	Solution
Orange	2 x 2 beeps	Media error	Possible reasons: the print medium has become trapped around the rubber roll; the sensor cannot detect a gap or black mark between the labels; there is no paper. Please reset the sensor.
Orange (flashing)	None	Print head overheat	Wait for the print head to cool off

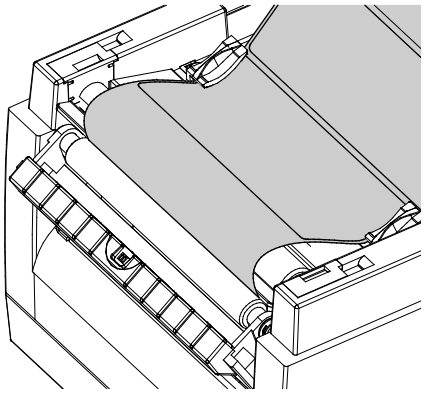
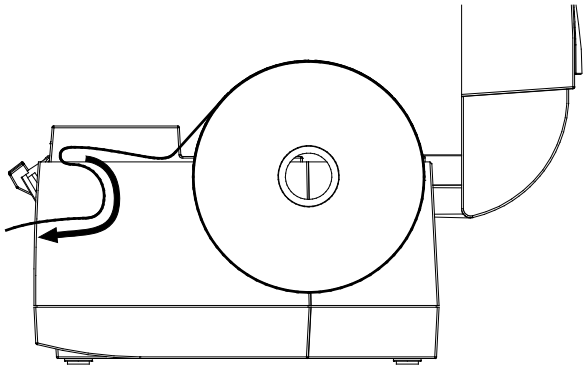
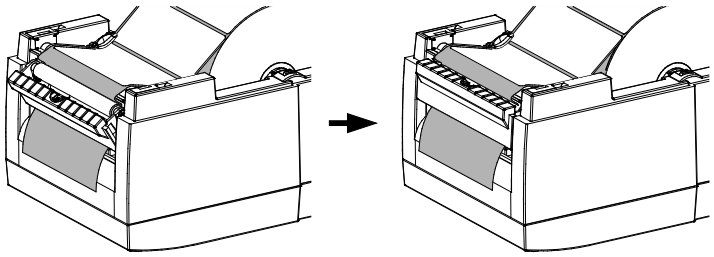
4. Accessories

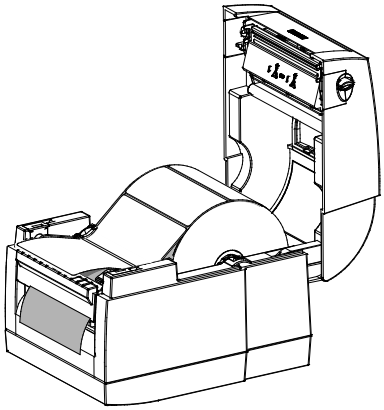
4-1. Installing the label dispenser

1	Label dispenser	
2	Screws (set of 2)	
【Note1】 Remember to switch off the printer before installing the label dispenser. *【Note 2】 A label liner thickness of 0.006 mm ± 10% and a weight of 65 g/m^2 ± 6% are recommended.* *【Note3】 The label dispenser will take labels up to a max. width of 110 mm.*		
1. Place the printer on a flat surface and open the printer cover.		
2. Remove the front cover. *【Note】* *You can use a coin or screwdriver to open the cover.*		

3. Pass the dispenser cable through the opening as shown in the illustration. 4. Fit the label dispenser in the recess provided.	
5. Turn the printer upside down and take out the screws to open the cover.	
6. Open the cover on the bottom of the printer to access the motherboard.	
7. Tighten the screws to secure the label dispenser.	

8. Connect the cable to the motherboard.	
9. Close the cover and tighten the screws again. 10. Place the printer the right way up again.	
11. Open the dispenser by folding it out. 12. Load the labels, following the instructions in Section 2-1.	

13. Remove the first label and pass the label liner over the roller and the tear-off plate. *【Note】* *The label stock should be at least 25 mm high.* *【Suggestion】* *When using the label dispenser, set the stop position to 9 mm.*	
14. Pass the label liner through the printer and dispenser as shown in the illustration.	
15. Fold up the dispenser cover to close it.	

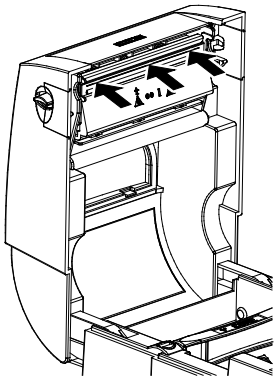
16. Switch on the printer and press the FEED button to measure the label stock.	

5. Maintenance and adjustment

5-1. Cleaning the print head

Dirt on the print head or glue residue from the label liner may result in inadequate print quality. The printer cover must therefore always be closed. Keeping dirt and dust away from the paper or labels ensures a good print quality and a longer lifespan of the print head. Here is how you clean the print head:

1. Switch off the printer.
2. Open the printer cover.
3. To remove any label residue or other dirt from the print head (see blue arrow), please use a Citizen head cleaning pen or a soft lint-free cloth dipped in alcohol.



【Note 1】

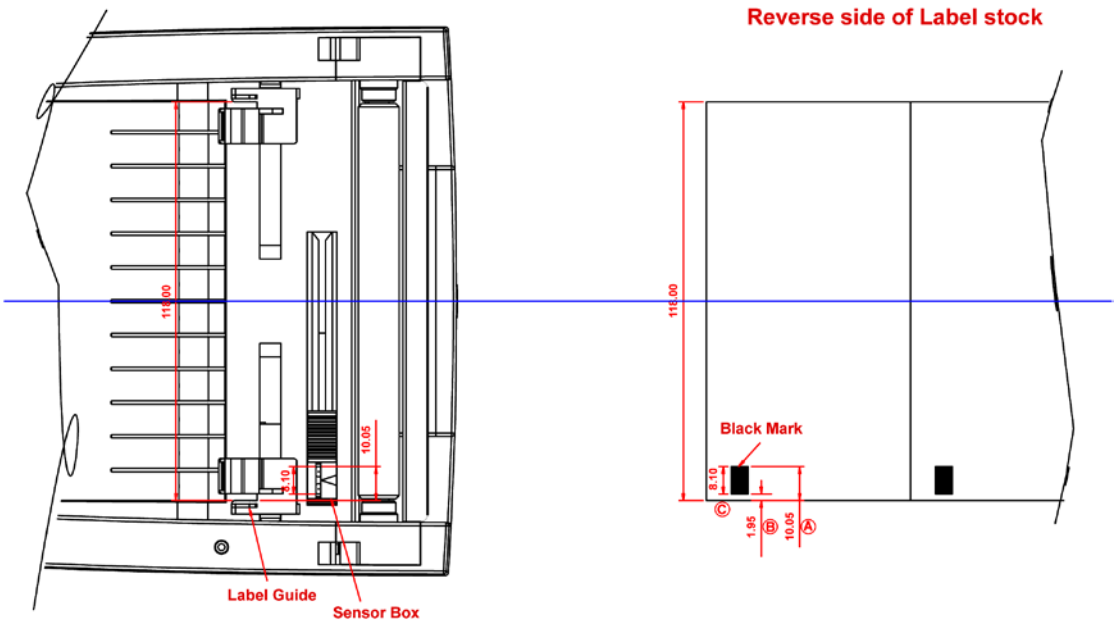
The print head should be cleaned once a week.

【Note 2】

Please make sure that there are no metal fragments or other hard particles on the soft cloth used to clean the print head.

5-2. Labels with black marks

If you are using black-mark label stock that has the printer's maximum feed width, the printer may not recognise the black marks because they are outside the sensor range. When using label stock with black marks, you should therefore observe the following restrictions:



For 118 mm wide label stock, the black marks should have the following positions and sizes:

- A > 10.05 mm high
- B < 1.95 mm high
- C > 8.1 mm high

5-3. Troubleshooting

Problem	Solution
The printer is switched on but the LEDs do not light up.	◆ Check the power supply.
The LED lights up orange (ERROR) and printing is interrupted.	◆ Check whether is an error in the software settings or the print commands. ◆ Replace the print medium with a suitable medium. ◆ Check whether there is a label jam. ◆ Check whether the label stock is finished. ◆ Check whether the print mechanism is closed (the print head is not positioned correctly). ◆ Check whether the print medium is covering the sensor.
The label stock passes through the printer but no image is printed.	◆ Please make sure that the label stock is loaded the right way up and that it is suitable material. ◆ Choose the correct printer driver. ◆ Choose the correct label stock and a suitable printing mode.
The label stock jams during printing.	◆ Clear the paper jam. Remove any label material left on the thermal print head and clean the print head using a soft lint-free cloth dipped in alcohol.
The label stock does not move correctly and there is no printed image on some parts of the label.	◆ Check whether any label material is stuck to the thermal print head. ◆ Check for errors in the application software. ◆ Check whether the starting position has been set incorrectly. ◆ Check the power supply.
There is no printed image on part of the label.	◆ Check the thermal print head for dust or other dirt. ◆ Use the internal “CZ SELFTEST” command to check whether the thermal print head will carry out a complete print job. ◆ Check the quality of the print medium.
The printed image is positioned incorrectly.	◆ Check whether there is paper or dust covering the sensor. ◆ Check whether the label liner is suitable. Please contact your dealer. ◆ Check the paper guide settings.
A label is missed out during printing.	◆ Check the label height setting. ◆ Check whether there is dust covering the sensor.

The printed image is blurred.	◆ Check the darkness setting. ◆ Check the thermal print head for glue residue or other dirt.
The peeler is not functioning correctly.	◆ Check whether there is dust on the label dispenser. ◆ Check whether the label stock is positioned correctly.

【Note】If any problems occur that are not described here, please contact your dealer.

Appendix

A. Printer interfaces

USB port

Connector type : Type B

Pin No.	1	2	3	4
Function	VBUS	D-	D+	GND

CITIZEN SYSTEMS AMERICA CORPORATION

363 Van Ness Way, Suite 404
Torrance, CA 90501. USA
Tel: (310) 781-1460
Fax:(310) 781-9152
http://www.citizen-systems.com

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PMC-1303